

Application No.: 09/986346Case No.: 54135US011REMARKS

The Examiner is thanked for the courteous and comprehensive in-person interview of November 2, 2004. On December 2, 2004, the Examiner and applicant's attorney discussed the Section 251 rejection on the telephone. The remarks set forth below include the comments made by applicant's attorney at the interviews.

Section 112 Rejection:

In accordance with the Examiner's suggestions, applicant states that the original patent has been surrendered in prior prosecution. The surrendered patent may be found in the file wrapper of issued patent U.S. RE 37,974E to John Bowers. This patent issued from application number 09/442,082, the parent to this continuation reissue application.

Claims 16, 19, 21, 24, and 90 have been amended to overcome the rejections under 35 USC § 112, first paragraph. For ease of reference, applicant has attached an Appendix to this Amendment, which Appendix shows the changes that have been made to these claims. Applicant believes that these claim changes eliminate any issue of indefiniteness under Section 112, first paragraph.

Section 103 Rejection:

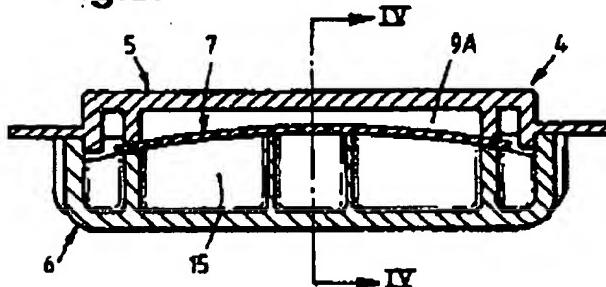
Claims 89-121 have been rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent 5,325,892 to Japuntich et al. (Japuntich) in view of U.S. Patent 5,295,478 to Baldwin. Applicant respectfully submits that this rejection cannot be sustained for the following reasons.

1. Firstly, neither Japuntich nor Baldwin teach or suggest imparting a transverse curvature to a flexible flap. Please note that applicant's independent claims require that the flexible flap exhibit a curvature in a direction transverse to the flap's longitudinal dimension. Neither Japuntich nor Baldwin disclose a flexible flap that is transversely curved. In both Japuntich and Baldwin, the illustrated flap is only curved in the longitudinal dimension. Applicant has explained the difference between a flap that is curved in a longitudinal dimension but not in a transverse dimension in the background section of this application. In particular, applicant explains that the [Japuntich] flap is "curved in the longitudinal direction of the flap" and that their invention is

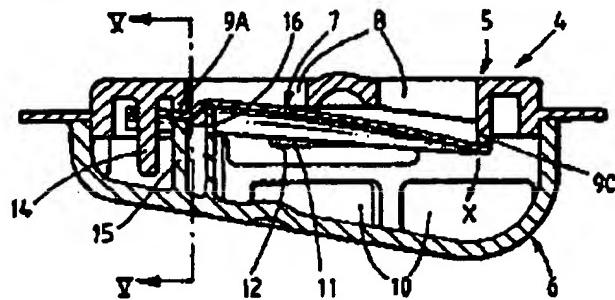
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different from the Japuntich construction because applicant's flap has a "transverse curvature".¹ As the terms "longitudinal" and "transverse" are used in applicant's specification and in the claims, the longitudinal dimension is the dimension that extends from the stationary portion of the flap towards the free peripheral edge of the flap; whereas the transverse dimension extends across the flap, normal to the longitudinal direction or dimension. The Examiner's attention is directed in particular, to Figure 5 of applicant's specification, which shows an arched transverse curvature that extends across the flap:

Fig.5.

Although applicant's flap may also be curved in the longitudinal dimension as shown in Figure 4:

Fig.4.

it does possess a transverse curvature as shown, for example, above in FIG. 5. As indicated, a longitudinally-curved flap is shown in U.S. Patent 5,325,892 to Japuntich:

¹ Please see applicant's specification at column 1, lines 55 to column 31, of the originally issued 5,687,767 patent.

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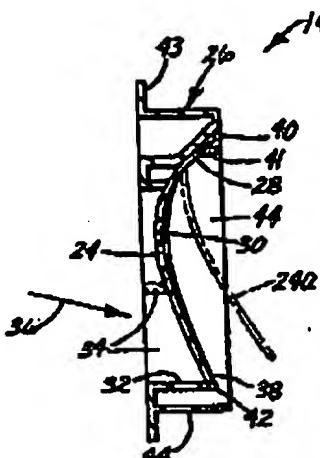


FIG. 3

The Japuntich flap 24 is curved in the direction extending from the stationary portion 28 of the flap 24 to its free peripheral edge 42. The valve that is used in the Baldwin resuscitator also is curved in its longitudinal dimension (see FIG. 3):

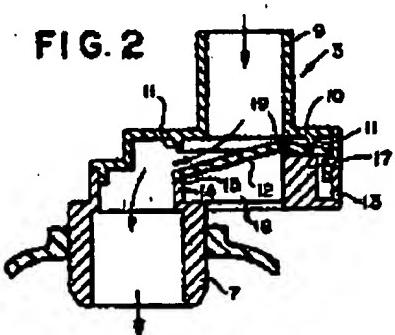


FIG. 2

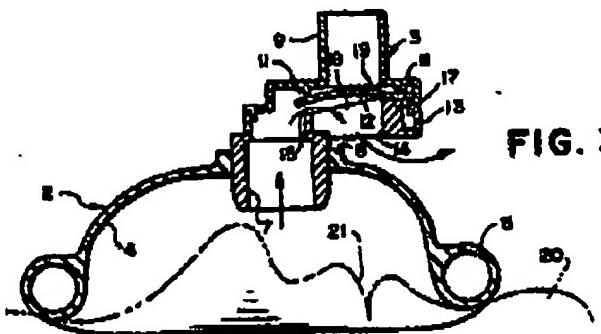


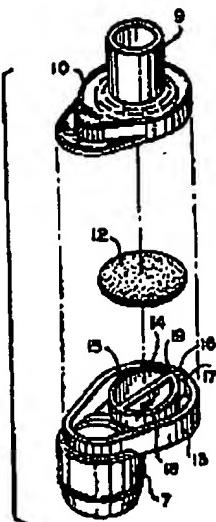
FIG. 3

Baldwin does not, however, show that its flap is curved transversely. Nor does the Baldwin specification mention a transverse curvature.

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As shown in Figure 4 of Baldwin, it uses a circular flap 12:

FIG. 4



The Baldwin circular flap has a longitudinal dimension or direction that extends from the stationary portion of the flap, which stationary portion extends mainly from the outer portion 19 of the rib 18 along the top surface 16 of post 17 to housing 13. The dimension or direction from this stationary portion to the opposing free edge or end of the Baldwin flap defines the longitudinal dimension. The transverse dimension or direction extends across the flap, normal to the longitudinal direction or dimension. Although the Baldwin flap is circular and is held in place a substantial distance inward from the stationary edge of the flap, it nonetheless is "cantilevered" because it is not centrally mounted and opens at one end. Thus, although the circular Baldwin flap 12 admittedly has a longitudinal dimension and is cantilevered, the reference does not indicate that its flap has a transverse curvature imparted to it. Nowhere is there any statement in the Baldwin description that indicates that the flap 12 is transversely curved. Further, neither of Baldwin's cross-sectional views (Figure 2 or Figure 3 reproduced above) show such a transverse curvature. Thus, if Baldwin intended or desired a transverse curvature — or suggested such a curvature to a person of ordinary skill — you would have expected that curvature to have been mentioned in the Baldwin specification or illustrated somewhere in the Baldwin drawings. This, however, is not the case.

The Examiner indicated during the interview, however, that such a transverse curvature could inherently occur by virtue of the mounting structure that is employed for securing Baldwin's flap 12 to its resuscitator housing. In response to this position, applicant reminds the Examiner that

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"inherency cannot be established by mere probabilities or possibilities."² The mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish that the reference inherently possesses the subject matter of a claimed invention.³ To establish inherency, the reference "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill."⁴ The record does not establish that the transverse curvature is "necessarily present" in Baldwin; nor does the record establish that a person of ordinary skill would have "recognized it" from reading the Baldwin disclosure. Baldwin's complete silence in its written description and its complete failure to illustrate a transverse curvature in the drawings provide nothing to hint that a transverse curvature would be necessarily present, and recognizably so, in the Baldwin disclosure. Thus, Baldwin cannot properly be relied on for inherently teaching or suggesting a transverse curvature.

2. Secondly, the records lacks any evidence of a motivating reason for combining the pertinent teachings of Japuntich with Baldwin. Thus, even if Baldwin did suggest the use of a transverse curvature in its circular valve flap 12 such that a person of ordinary skill would recognize the suggestion, neither Baldwin nor Japuntich, nor any other reference of record, indicates why a person of ordinary skill would have been motivated to use Baldwin's teachings in Japuntich. The Japuntich patent clearly shows a method for mounting a flexible flap to a valve seat to provide a minimal force for keeping the flap closed under any orientation of the valve. Japuntich does this by tracing the longitudinal curvature of the flap when it is supported towards one end. Please note that the Japuntich valve functions so well that, in some instances, greater than 100% of the exhaled air can exit the mask at high flow volumes (see examples 11-13 in the Japuntich patent). Imparting a transverse curvature to the Japuntich valve, which already remains closed under any orientation, could only hamper the performance of the valve. Thus, if the prior art valve performs extraordinarily well and if the combination of teachings would have had a deleterious effect on valve performance, there surely would not have been any motivating factor for combining the references.

² *Continental Can Co. v. Monsanto Co.*, 948 F2d. 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991); see also *In re Robertson*, 169 F3d. 743, 745 (Fed. Cir. 1999) ("Inherence, however, may not be established by probabilities or possibilities.. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.").

³ *Id.*

⁴ *Id.*

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3. Thirdly, even if the record presented a teaching of a transverse configuration in Baldwin, and even if the record did include a motivating reason for combining Japuntich and Baldwin, there still remains the question of whether Baldwin teaches or suggests a non-aligned relationship between the seal surface and the flap at the location where the force is exerted on the flap to bias the flap towards the seal surface. Baldwin only states that "the portion of the peripheral edge 15 and the outer portion 19 of the rib 18 adjacent to the post 17 is higher than the top surface 16 of the post 17 to thereby form a hinge for biasing the disk valve 12 against the annular knife edge 11." The reference does not state or illustrate whether there is a nonaligned relationship. As such, the obviousness rejection cannot be properly sustained.

In summary, applicant's invention would not have been obviousness to a person of ordinary skill because: (1) neither reference teaches or suggests a traverse configuration, inherently or otherwise, (2) the record fails to contain any evidence of why a person of ordinary skill would have been motivated to make the combination set forth in the Office Action, and (3) Baldwin does not illustrate the non-aligned relationship between the seal surface and the flap.

Section 251 Rejection:

This application has been rejected under 35 USC § 251 for the following reason:

The reissue oath/declaration fails to identify at least one error which is relied upon to support the reissue application. See 37 CFR 1.175(a)(1) and MPEP § 1414. As this application is a Continuation Reissue application, the currently filed oath/declaration lists "errors" correctable by reissue which were in the original patent. These "errors" were then corrected during prosecution of the parent Reissue application Ser. No. 09/442,082 now Reissued Patent RE 37,974. Accordingly, any Reissue oath/declaration filed in a continuation Reissue application must list "errors" allegedly now in the Reissued patent (RE 37,974, Ser. No. 09/442,082). As the original patent has been surrendered in favor of Reissued Patent RE 37,974, there are in fact no "errors" in the original patent because there now is no "original" patent. The act of filing a Continuing Reissue application presumes there are in fact now "errors" in the Reissued Patent (37,974). In accordance with 37 CFR 1.175(b)(1), a supplemental reissue oath/declaration under 37 CFR 1.175(b)(1) must be received before this reissue application can be allowed.

Applicant respectfully takes issue with this position. 37 USC § 251 specifically states that "[t]he Commissioner may issue several reissue patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue of each of such reissued patents." The implementing rule, 37 CFR § 1.177 indicates the following:

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The office may reissue a patent as multiple reissue patents. If applicants files more than one application for the reissue of a single patent, each such application must contain or be amended to contain in the first sentence of the specification a notice stating that more than one reissue application has been filed and identifying each of the reissue applications by relationship, the application number and filing date.

Because the applicant has paid the required fees and has amended the application to insert the required first sentence, applicant has accordingly complied with the law and is entitled to file multiple reissue patent applications. If applicants were required to state that they were correcting "errors in the reissued patent", such a requirement would run counter to the statute and implementing rule, which clearly allow several reissued patents for distinct and separate parts of the thing patented. Further, 37 CFR § 1.175(e) explicitly states that:

The filing of any continuing reissue application which does not replace its parent reissue application must include an oath or declaration which, pursuant to paragraph (a)(1) of this section, identifies at least one error in the original patent which has not been corrected by the parent reissue application or an earlier reissue application.

Applicant will submit a Supplemental Oath/Declaration that covers all the changes made to this application since its filing and that identifies at least one error in the original patent that has not been corrected by the parent reissue application. Applicant does not believe that he needs to recite an error in Reissue Patent RE 37,974. Please also consider that this continuation application was filed before the issue date of U.S. Patent Re 37,974 and that the effective surrender date of the originally issued patent 5,687,767 does not take effect until issue of the reissued patent.⁵

For these reasons, applicant respectfully submits that all claims in this application are in condition to be allowed. Please further examine this application in light of this Amendment and the remarks provided above.

⁵ 35 USC § 252 ("The surrender of the original patent shall take effect upon issue of the reissued patent....").

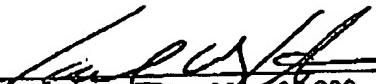
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It is believed that no fee is due, but in the event that a fee is required, please charge the fee
to Deposit Account No. 13-3723.

Respectfully submitted,

December 6, 2004
Date

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3M Innovative Properties Company
Facsimile No.: 651-736-3833

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16. (currently amended) An exhalation permitting filter mask assembly for positioning over the mouth and nose of a user, the filter mask assembly comprising:
- a mask configured to fit over the nose and mouth of a user and including filter material through which air can be inhaled by a user while effecting filtration of the inhaled air;
 - a uni-directional valve mounted to the mask for permitting exhalation through the valve while precluding inhalation through the valve;
 - the valve including a flexible flap having a root end portion, opposite side portions and a free end portion, an upper housing member, an inlet port and a valve seat surrounding the inlet port and being part of the upper housing member and including a sealing surface adjacent the inlet port;
 - the valve further including a lower housing member that includes a flap-engaging member;
 - the flexible flap being fixedly mounted at the root end portion relative to the upper housing member in a manner so that the free end portion makes sealing contact with the sealing surface when the flexible flap is closed and so that the free end portion of the flexible flap lifts from contact with the sealing surface and moves outwardly of the sealing surface when exhaled air passes through the inlet port; and
 - the flexible flap having a transverse curvature extending medially of the flap imparting sufficient stiffening to the flexible flap to maintain the flexible flap in sealing contact with the sealing surface for any orientation of the filter mask during normal operating conditions in the absence of a pressure differential across the flexible flap
 - wherein the transverse curvature is imparted to the flexible flap by having the flap-engaging member contact the root end portion of the flexible flap such that the flap is held against the sealing surface of the upper housing member and such that a portion of the flap resides in non-alignment with the sealing surface of the upper housing member when the valve is viewed in a longitudinal section (FIG. 4).

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19. (currently amended) A filter mask assembly as recited in claim 16, wherein the additionally including lower housing member faces facing the upper housing member, and wherein the root end portion of the flexible flap is trapped and fixedly positioned between facing surfaces of the upper housing member and the lower housing member.

21. (currently amended) A filter mask assembly as recited in claim 19, wherein that part of the sealing surface of the valve seat which the free end portion of the flexible flap contacts is a flat surface.

24. (currently amended) A filter mask assembly as recited in claim 23, additionally including a second profiled block provided in the lower housing member engaging a central portion of the flexible flap outwardly of the root end portion to urge the central portion toward the upper housing to enhance the transverse curvature of the flexible flap.

90. (currently amended) The filter face mask of claim 89 [[87]], further comprising a valve cover that has a profiled block extending therefrom, the profiled block engaging the flap so as to create the force needed to impart an arched curvature to the flap.